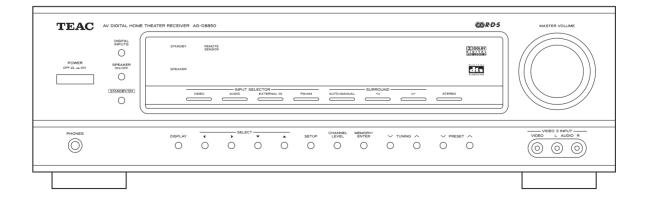
9A10505400

TEAC



AV Digital Home Theater Receiver

OWNER'S MANUAL





CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT SAFETY INSTRUCTIONS

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11)Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- Do not expose this apparatus to drips or splashes.
- Do not place any objects filled with liquids, such as vases, on the apparatus.
- Do not install this apparatus in a confined space such as a book case or similar unit.
- The apparatus draws nominal non-operating power from the AC outlet with its STANDBY/ON switch in the standby position.
- The apparatus should be located close enough to the AC outlet so that you can easily grasp the power cord plug at any time.
- An apparatus with Class I construction shall be connected to an AC outlet with a protective grounding connection.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

- DO NOT REMOVE THE EXTERNAL CASES OR CABINETS TO EXPOSE THE ELECTRONICS. NO USER SERVICEABLE PARTS ARE WITHIN!
- IF YOU ARE EXPERIENCING PROBLEMS WITH THIS PRODUCT, CONTACT TEAC FOR A SERVICE REFERRAL. DO NOT USE THE PRODUCT UNTIL IT HAS BEEN REPAIRED.

For European customers

Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.



2. All electrical and electronic products should be disposed of separately from

the municipal waste stream via designated collection facilities appointed by the government or the local authorities.

- 3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
- 4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

Contents

Before Use

Thank you for choosing TEAC. Read this manual carefully to get the best performance from this unit.

Contents
Before Use
Connection (FM antenna)
Connection (AM antenna)
Connection6
Speaker Connections
Positioning of the Speakers
Restoring factory settings
Names of Each Control
Remote Control Unit
Basic Operation
Recording a Source
Surround Mode
Stereo Mode
Dynamic Range Compression 22
DOLBY PRO LOGIC II parameters
Tuner
Preset Tuning
RDS
RDS Search
Setup
Setup Menu Chart
Settings
System
Input
Speaker Setup
Channel Level
Parameters
Test Tone
Troubleshooting
Specifications

Read this before operation

- As the unit may become warm during operation, always leave sufficient space around the unit for ventilation. The ventilation holes should not be covered. Make sure there is at least 20 cm of space above and at least 5 cm of space on each side of the unit. Do NOT place anything on top of the unit.
- The voltage supplied to the unit should match the voltage as printed on the rear panel. If you are in any doubt regarding this matter, consult an electrician.
- Choose the installation location of your unit carefully. Avoid placing it in direct sunlight or close to a source of heat. Also avoid locations subject to vibrations and excessive dust, heat, cold or moisture.
- Do not place the unit on the amplifier/receiver.
- Do not open the cabinet as this might result in damage to the circuitry or electrical shock. If a foreign object should get into the unit, contact your dealer or service company.
- When removing the power plug from the wall outlet, always pull directly on the plug, never yank the cord.
- Do not attempt to clean the unit with chemical solvents as this might damage the finish. Use a clean, dry or slightly damp cloth.
- Keep this manual in a safe place for future reference.

CAUTION Regarding Placement

To maintain proper ventilation, be sure to leave a space around the unit (from the largest outer dimensions including projections) equal to, or greater than, shown below.

> Left and Right Panels: 5 cm Rear Panel: 10 cm Top Panel: 20 cm

"DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

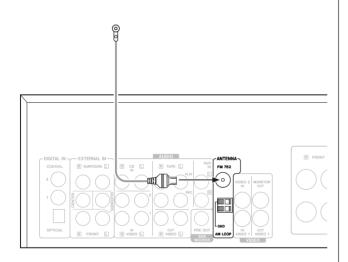
Manufactured under license from Dolby Laboratories. Dolby, Pro Logic and the double-D symbol are trademarks of Dolby Laboratories.

CAUTION:

- Turn off the power of all the equipment before making connections.
- Read instructions of each component you intend to use with this unit.
- Be sure to insert each plug securely. To prevent hum and noise, do not bundle the connection cords with the power cord or speaker cables.

FM Indoor Antenna

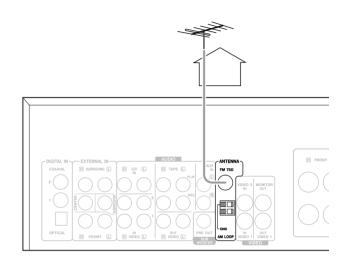
Connect the lead-type FM antenna to the "FM 75 Ω " socket, extend the lead and tune the tuner to your favorite FM station (see page 24). Adjust the antenna in a suitable location like a window frame or wall until the reception is best and then affix the antenna in that position using thumb tacks, push pins or any other suitable means.



FM Outdoor Antenna

In an area where FM signals are weak, it will be necessary to use an 75-ohm unbalanced-type outdoor FM antenna. Generally, a 3-element antenna will be sufficient; if you live in an area where the FM signals are particularly weak, it may be necessary to use one with 5 or more elements.

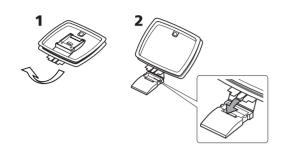
• Disconnect the FM indoor antenna when using an outdoor antenna.



AM Indoor Loop Antenna

The high-performance AM loop antenna provided with this unit is sufficient for good reception in most areas.

To stand the loop antenna on a surface, fix the claw to the slot in the antenna base.



How to connect:

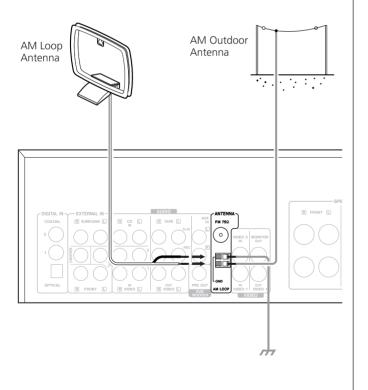
Connect the loop antenna's wires to the AM antenna terminals.

Make sure to connect:

white wire \rightarrow lower terminal black wire \rightarrow upper terminal (GND)



Place the antenna on a shelf or hang it on a window frame, etc., in the direction which gives the best reception. Keep all other wires such as power cords, speaker wires or interconnect wires as far away as possible from the antenna.



AM Outdoor Antenna

If the AM loop antenna provided does not deliver sufficient reception (often due to being too far from the transmitter or in a concrete building, etc.), it may be necessary to use an outdoor AM antenna.

Use either a high quality commercial AM antenna or, if not available, an insulated wire more than 5 m long, strip one end, and connect this to the terminal as shown.

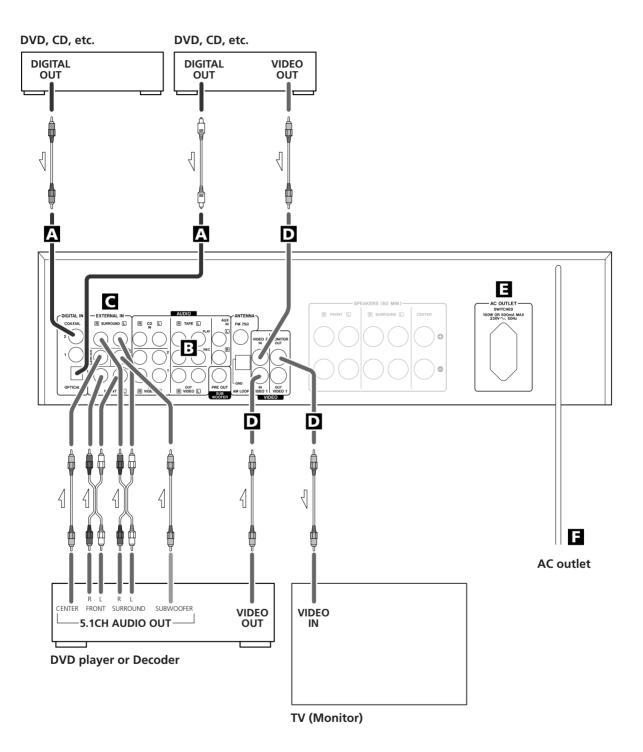
The antenna wire should be strung outdoors or indoors near a window. For better reception, connect the GND terminal to a reliable ground.

Note:

Even when using an outdoor AM antenna, do not disconnect the AM loop antenna.

CAUTION:

- Turn off the power of all the equipment before making connections.
- Read instructions of each component you intend to use with this unit.
- Be sure to insert each plug securely. To prevent hum and noise, do not bundle the connection cords with the power cord or speaker cables.



A DIGITAL IN terminals

Used for the input of digital audio signals. Connect these digital input terminals to the appropriate digital output terminals of the digital audio source unit such as a DVD or CD player. Use a good quality RCA coaxial cable or optical digital cable.

• When inserting the plug of the optical cable, the protective shutter of the terminal will open and you should hear it click into position when fully inserted. Be careful that you do not force the plug, because this could result in damage to the protective shutter, the cable, or the unit itself.

B AUDIO IN/OUT jacks

Analog 2-channel audio signal is input or output from these jacks. Connect the component with commercially available RCA cables.

Make sure to connect:

white plug \rightarrow white jack (L: left channel) red plug \rightarrow red jack (R: right channel)

C EXTERNAL IN jacks

If your DVD player or decoder has 6-channel analog audio outputs, connect them with good quality RCA cables.

D VIDEO jack

Connect the component with a high quality RCA cable designed for video applications.

E AC OUTLET (switched)

Not available for Australian model. This outlet is active only when the unit is on.

Caution:

Make sure that the total power consumption of all equipment connected to the outlet does not exceed 100 watts or 500 mA.

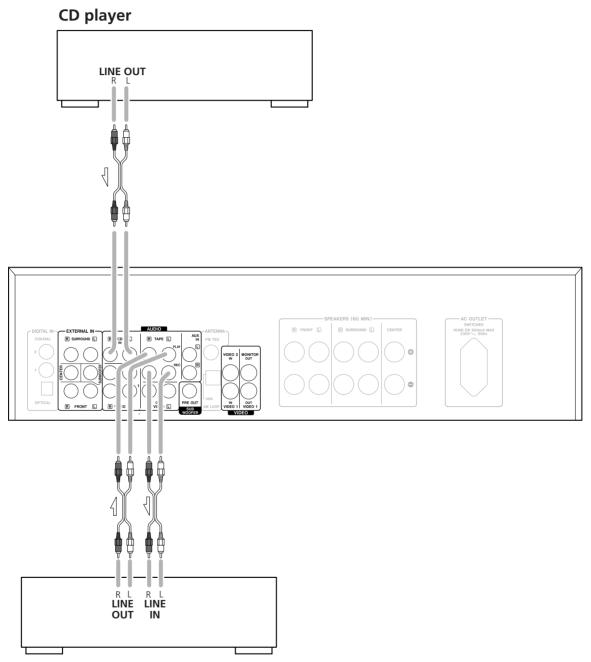
F AC Power Cord

After all other connections are complete, connect the plug to the AC wall socket.

Be sure to connect the power cord to an AC outlet which supplies the correct voltage. Hold the power plug when plugging or unplugging the power cord. Never pull or yank on the power cord.

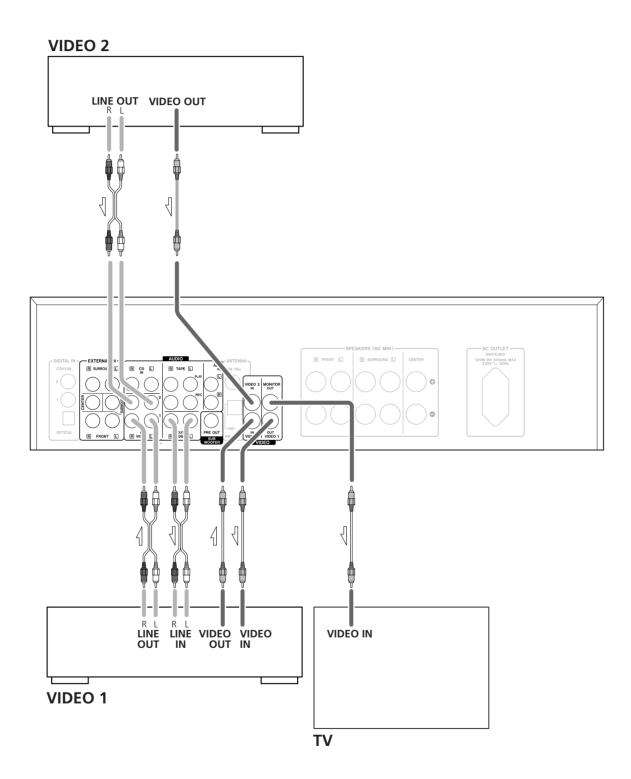
Connection

Example: Connection to Audio Components



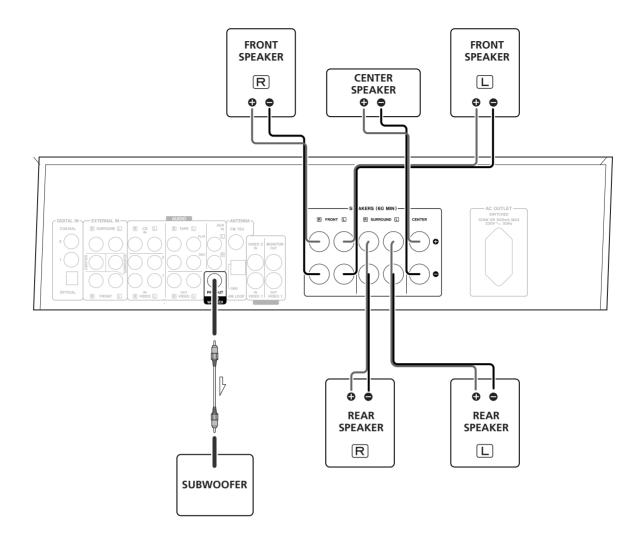
Cassette tape deck, MD deck, etc.

Example: Connection to Video Cassette Recorders



9

Speaker Connections



Caution:

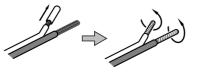
To avoid damaging the speakers with a sudden high-level signal, be sure to switch the power off before connecting the speakers.

Check the impedance of your speakers. Connect speaker with an impedance of 6 ohms or more.

The black speaker terminals are – (negative).

Generally, the + side of the speaker cable is marked to make it distinguishable from the – side of the cable. Connect this marked side to the + terminal and the unmarked side to the black – terminal.

Prepare the speaker cables for connection by stripping off approximately 10 mm or less of the outer insulation. (Removing too much insulation may lead to a short circuit if the bared wires should come in contact with each other.) Twist the strands of the stripped wires tightly together:



Caution:

The metal portions of the two separate wires should not touch or an electrical short can occur. Shorted wires can create a fire hazard or induce a failure in your equipment.

How to connect:

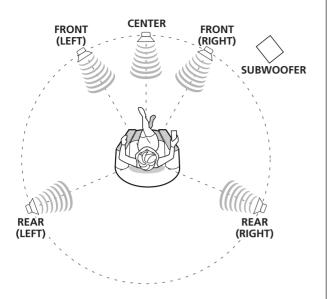
- 1. Turn the terminal cap counterclockwise to loosen it. The speaker terminal caps cannot be fully removed from the base.
- 2. Insert the wire into the terminal fully and turn the terminal cap clockwise to securely connect it:



Make sure none of the wire insulation is under the terminal, only the bare, stripped wire.

3. Make sure it is fastened firmly by pulling the cable lightly.

Positioning of the Speakers



The positioning of speakers differs according to the size and acoustics of the listening room. While actually listening to a program source, try various speaker positions to determine which layout provides the best surround effect.

- Ideally, position all the speakers in a circle, with the same distance from your listening position.
- Place the speakers connected to "L" to your left, and "R" to your right.

Front speakers

Use magnetically shielded speakers, if you are using them near your TV.

Place the front speakers in front of the listening position, to the left and right of a TV.

Front speakers are required for all surround modes.

Center speaker

Use a magnetically shielded speaker if you are using it near your TV. Place a center speaker between the front speakers, on or below the TV. This speaker stabilizes the sound image.

Rear (Surround) Left and Right speakers

Install these speakers above the level of the listener's ears, directly to the left and right (or slightly behind) of your listening position.

Subwoofer

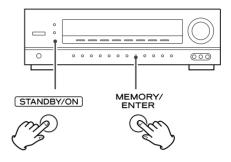
Reproduces powerful and deep bass sounds.

Use a subwoofer with built-in amplifier referred to as a "powered subwoofer". Subwoofers are most effective when placed on or near the floor and in a corner of the room. Refer to the instructions that came with your subwoofer for placement suggestions.

Restoring factory settings

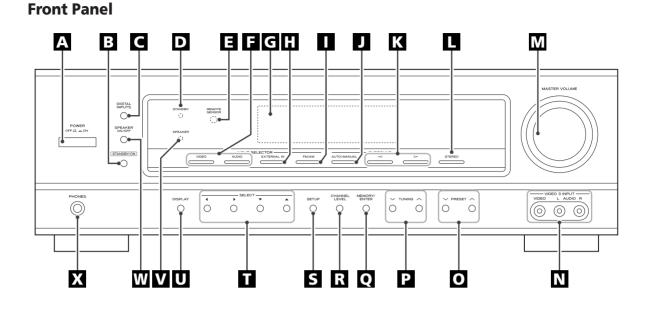
If you have made a lot of changes in the setup, and want to restart from a known set of options, restore the unit to the factory default settings as follows:

- 1. Turn the unit standby using the STANDBY/ON button.
- 2. While holding down the MEMORY/ENTER button, press the STANDBY/ON button of the main unit.

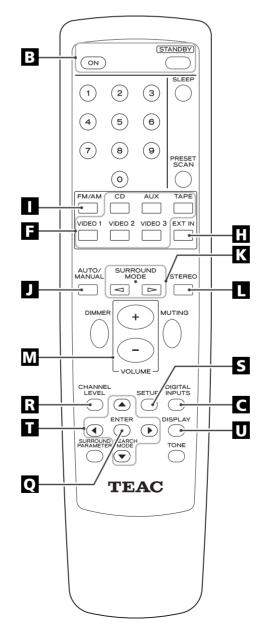


All memories are erased, and the unit returns to the factory settings.

Names of Each Control



Remote Control Unit



Front Panel and Remote Control Unit

A POWER

Press this switch to turn the unit standby or off.

The equipment draws nominal non-operating power from the AC outlet with its POWER switch in the OFF position.

B STANDBY/ON

When the POWER switch of the main unit is depressed, use this button to turn the unit on or standby.

C DIGITAL INPUTS

Use this button to select one of the digital input terminals.

D STANDBY indicator

This indicator lights when the unit is in the standby mode. When the unit is turned on, it goes off.

E Remote Sensor

When operating the remote control unit, point it towards the remote sensor.

F INPUT SELECTOR (VIDEO, AUDIO)

Use these buttons to select a source.

G Display

EXTERNAL IN

Use this button to select the source connected to the EXTERNAL IN jacks.

FM/AM

Use this button to select band and FM mode.

J AUTO/MANUAL

Use this button to change the decoding mode of digital signals.

K SURROUND (⊲/ ▷)

Use these buttons to select a surround mode.

L STEREO

Use this button to select stereo mode. Sound is output only from the front speakers (and the subwoofer).

MASTER VOLUME

Turn this knob (or press the VOLUME buttons of the remote control unit) to adjust the master volume.

N VIDEO 3 INPUT jacks

You can connect a component such as a portable CD, game player, etc. to these jacks.

In the preset tuning mode, use these buttons to select a preset channel.

In the manual tuning mode, use these buttons to tune in a station.

Q MEMORY/ENTER

Use this button to store speaker settings and preset channels into memory.

CHANNEL LEVEL

Use this button to enter the channel level setting mode.

S SETUP

Use this button to enter the setup menu.

SELECT (◄/►/▲/▼)

Use these buttons to select and adjust the setting options in each menu.

U DISPLAY

Use this button to change the display mode or to select RDS functions in FM mode.

V SPEAKER indicator

This indicator lights when the SPEAKER ON/OFF button is set to ON.

W SPEAKER ON/OFF

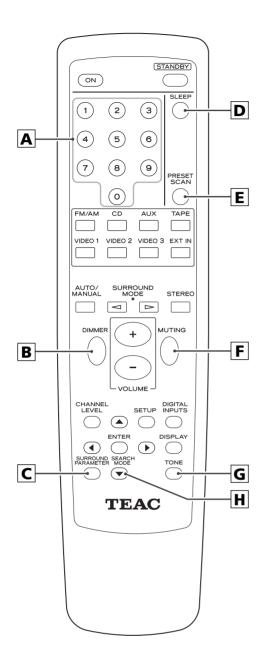
Use this button to turn on or off the speakers.

ON: Sound is output from the speakers. OFF: No sound is output from the speakers.

X PHONES

For private listening, insert the headphones plug into this jack, and adjust the volume by turning the MASTER VOLUME knob.

Names of Each Control



Remote Control Unit

A Numeric buttons

In tuner mode, use these buttons to select a preset channel.

B DIMMER

Use this button to dim or turn off the display.

C SURROUND PARAMETER

Use this button to change parameters of DOLBY PRO LOGIC II MUSIC.

D SLEEP

Use this button to set sleep timer.

E PRESET SCAN

Use this button to scan preset channels.

F MUTING

Use this button to mute the sound temporarily.

G TONE

Use this button to output the test tone.

H SEARCH MODE

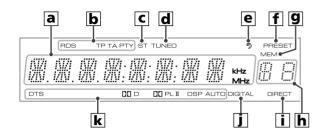
Use this button to search for a station offering RDS services.

Note:

To simplify explanations, instructions in this manual refer to the names of the buttons and controls on the front panel only. Associated controls on the remote control will also operate similarly.

Remote Control Unit

Front Panel Display



a displays current status.

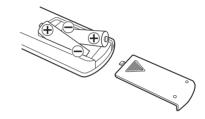
- **b** illuminates when RDS function is active (European models only).
- **c** illuminates when FM stereo broadcast is tuned.
- **d** illuminates when a station is tuned.
- e illuminates when sleep timer is set.
- f illuminates when preset tuning mode is selected.
- **9** blinks when the MEMORY/ENTER button is pressed.
- h displays preset number, sleep time or delay time.
- illuminates when tone control is set to off.
- illuminates when a digital input is selected and blinks when no signal is present in the selected digital input.
- k surround mode

The provided Remote Control Unit allows the unit to be operated from a distance.

When operating the remote control unit, point it towards the remote sensor on the front panel of the unit.

- Even if the remote control unit is operated within the effective range (7 m), remote control operation may be impossible if there are any obstacles between the unit and the remote control.
- If the remote control unit is operated near other products which generate infrared rays, or if other remote control devices using infrared rays are used near the unit, it may operate incorrectly. Conversely, the other products may operate incorrectly.

Battery Installation



- 1. Remove the battery compartment cover.
- Insert two "AAA" (R03 or UM-4) dry batteries. Make sure that the batteries are inserted with their positive "⊕" and negative "⊖" poles positioned correctly.
- 3. Close the cover.

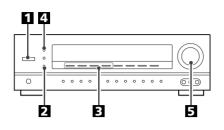
Battery Replacement

If the distance required between the remote control unit and main unit decreases, the batteries are exhausted. In this case replace the batteries with new ones.

Precautions concerning batteries

- Be sure to insert the batteries with correct positive "⊕" and negative "⊖" polarities.
- Use batteries of the same type. Never use different types of batteries together.
- Rechargeable and non-rechargeable batteries can be used. Refer to the precautions on their labels.
- When the remote control unit is not to be used for a long time (more than a month), remove the batteries from the remote control unit to prevent them from leaking. If they leak, wipe away the liquid inside the battery compartment and replace the batteries with new ones.
- Do not heat or disassemble batteries and never dispose of old batteries by throwing them in a fire.

Basic Operation 1



1 Press the POWER switch.

The unit enters standby mode, and the standby indicator lights.

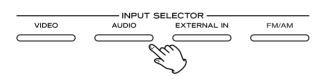


2 Press the STANDBY/ON button to turn the unit on.

The standby indicator goes off.



Select a source by pressing one of the INPUT SELECTOR buttons.



The selected source is shown on the front panel's display.

Each time the VIDEO button is pressed, the source changes as follows:



Each time the AUDIO button is pressed, the source changes as follows:



Each time the FM/AM button is pressed, the mode changes as follows:

$$\rightarrow$$
 FM ST \rightarrow FM MONO \rightarrow AM \neg

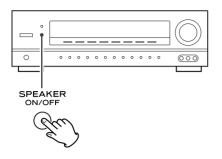
- If one of the INPUT SELECTOR buttons is pressed in the standby mode, the unit is turned on.
- If the source is connected to EXTERNAL IN jacks, press the EXTERNAL IN button and proceed to step **5**.
- When you selected VIDEO (1 or 2) or CD in step , press the DIGITAL INPUTS button repeatedly to select the terminal.



- **o1:**Select this when the source is connected to DIGITAL IN (OPTICAL) terminal.
- **c1:** Select this when the source is connected to DIGITAL IN (COAXIAL 1) terminal.
- **c2:** Select this when the source is connected to DIGITAL IN (COAXIAL 2) terminal.
- A: Select this when the source is connected to analog AUDIO IN jacks.
- The DIGITAL indicator blinks when the unit cannot perceive the digital signal. In that case, connect a digital device to the DIGITAL IN terminal, switch it on, and select the terminal by pressing the DIGITAL INPUTS button.
- You can hear the sound from the selected DIGITAL IN terminal as far as VIDEO (1 or 2) or CD has been selected in step **3**.
- Play the source, and gradually turn up the volume to the required level by turning the MASTER VOLUME knob.



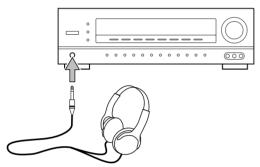
Speaker On/Off



Press the SPEAKER ON/OFF button to turn the speakers on or off.

When ON is selected, the SPEAKER indicator lights.

Headphones



For private listening, first reduce the volume level on the receiver to minimum. Then insert the plug from your headphones into the PHONES jack, and adjust the volume by turning the MASTER VOLUME knob.

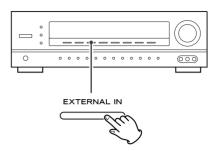
If you want to cut off the sound from speakers, press the SPEAKER ON/OFF button to turn it off.

• When the SPEAKER ON/OFF button is set to OFF, the multichannel sound is downmixed to 2-channel automatically.

CAUTION

Always lower the volume level prior to plugging in your headphones. TO AVOID DAMAGING YOUR HEARING - Do not place your headphones on your head until after you have plugged them in.

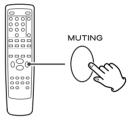
EXTERNAL IN (6 channel direct input)



If the source is connected to EXTERNAL IN jacks, press the EXTERNAL IN button. "EXT, IN" appears on the display, and 6 discrete analog signals can be heard from speakers.

Press the EXTERNAL IN button again (or select any other source by pressing the INPUT SELECTOR buttons) to cancel the EXTERNAL IN function.

Muting

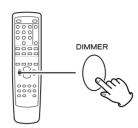


To mute the sound temporarily, press the MUTING button. Press the MUTING button again to restore the sound. If you change the volume during the muting, the muting will be canceled.

• While muting is engaged, "MUTE" blinks on the display.

Basic Operation 2

Dimmer



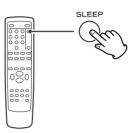
You can dim or turn off the front panel's display by pressing the DIMMER button.

- When the display is turned off, pressing any button will turn the display on.
- This function will be canceled when the STANDBY/ON button or the POWER switch is pressed.
- When you set the sleep timer, the display is dimmed automatically.

Sleep Timer

The power can be switched off after a specified amount of time.

Press the SLEEP button repeatedly until desired time appears on the display.



SLEEP 10 (20, 30, 40, 50, 60, 70, 80, 90):

The power will be switched off 10 (20, 30, 40, 50, 60, 70, 80 or 90) minutes later.

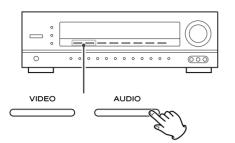
Normal display:

The sleep timer is off.

When you set the sleep timer, the display is dimmed, and the remaining time is displayed.

Recording a Source

1 Select a source to be recorded by pressing one of the INPUT SELECTOR buttons.

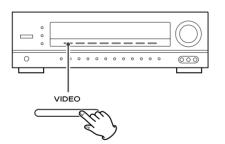


2 Start recording on the cassette tape deck connected to TAPE REC jacks.

- The volume and tone control have no effect on the recording signals.
- The analog signals input from the EXTERNAL IN jacks cannot be recorded.

Dubbing from VIDEO 2 or 3 to VIDEO 1

Select VIDEO 2 or 3 by pressing the VIDEO button (or the VIDEO 2 or 3 button of the remote control unit).



2 Start recording on the VCR connected to VIDEO 1 REC jacks.

Start playback on the VCR connected to VIDEO 2 or 3 INPUT jacks.

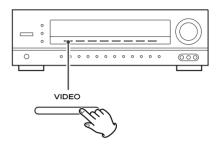
The audio and video signals input from VIDEO 2 or 3 are output from VIDEO 1 REC jacks.

• Copy protected DVD discs cannot be dubbed.

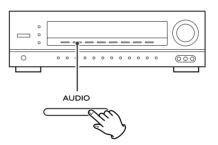
Dubbing the audio and video signals separately

While dubbing the video signal of VIDEO 2 or 3, you can replace the sound from VCR with the sound from an audio source such as CD.

Select the video source to be recorded using the VIDEO button (or the VIDEO 2 or 3 button of the remote control unit).



Select the audio source to be recorded (CD, TUNER or AUX) using the AUDIO button (or the corresponding buttons of the remote control unit).

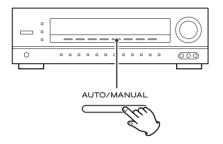


Start recording on the VCR connected to VIDEO 1 REC jacks.

4 Start playback of the video and audio source to be recorded.

The picture from the video component appears on the TV, and the sound from the audio component is output from the speakers.

If a digital device is connected to DIGITAL IN terminals, select the desired decoding mode by pressing the AUTO/MANUAL button.



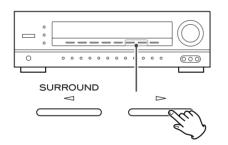
Each time the AUTO/MANUAL button is pressed, the decoding mode is changed as follows:

AUTO (default):

The appropriate decoding mode is selected automatically. Usually, select this.

MANUAL:

Select the desired surround mode by pressing the SURROUND button (\lhd or \succ).



Each time the SURROUND button (\lhd or \rhd) is pressed, the surround mode changes.

When the source is Dolby Digital 5.1-channel: DOLBY DIGITAL

- When the source is Dolby Digital 2-channel: DOLBY PRO LOGIC II MOVIE, DOLBY PRO LOGIC II MUSIC, DOLBY PRO LOGIC
- B When DTS signals are input and AUTO is selected, the surround mode is set to DTS automatically. The SURROUND buttons do not work.
- C When the source is PCM (2-channel stereo), or when analog stereo signals are input, you can select one of the following surround modes:

DOLBY PRO LOGIC II MOVIE, DOLBY PRO LOGIC II MUSIC, DOLBY PRO LOGIC, MATRIX, CHURCH, THEATER, HALL, STADIUM

- When the SURROUND button (< or ▷) is pressed once, the current surround mode is displayed. Press the SURROUND button (< or ▷) repeatedly to select any other surround mode.
- DOLBY DIGITAL can be selected only during playback of a DVD disc recorded in DOLBY DIGITAL format.
- Press the STEREO button to cancel the surround mode.
- If the SPEAKER ON/OFF button is turned to OFF, the SURROUND buttons will not work.

DTS (DTS Digital Surround)

During playback of a DVD disc recorded in DTS format, the surround mode is set to DTS automatically.

DTS Digital Surround delivers up to 5.1 channels with lower audio compression than Dolby Digital. It provides the clarity and dynamics of the original master soundtrack.

Dolby Digital

During playback of a DVD disc recorded in DOLBY DIGITAL format, the surround mode is set to DOLBY DIGITAL automatically.

Dolby Digital delivers up to 5 totally discrete, full-frequency audio channels (front left and right, center, and surround left and right), plus 0.1 channel called LFE (Low-Frequency Effects). LFE delivers a separate non-directional bass signal to the sub-woofer for more dynamic deep bass sound effects.

Dolby Pro Logic II

Dolby Pro Logic II is an advanced matrix decoder that gives you 5.1-channel surround sound (front left, center, front right, surround left and surround right) from any stereo program material, as well as Dolby Surround encoded material.

Compared with Pro Logic's monaural, limited-bandwidth surround channel, Pro Logic II can provide two full-range surround channels.

• DOLBY PRO LOGIC II will not work on monaural source.

DOLBY PRO LOGIC II MOVIE:

This mode is optimized for movies or Dolby Surround encoded materials. This mode is also appropriate for use with video games.

DOLBY PRO LOGIC II MUSIC:

The Music mode creates a rich and enveloping surround ambience from stereo sources such as music CDs.

Dolby Pro Logic

Dolby Pro Logic is a matrix decoder that decodes the four channels of surround sound (front left, center, front right and surround) that have been encoded onto the stereo soundtracks of Dolby Surround encoded material such as VHS movies. The surround channel is monaural, but is played through two surround speakers.

MATRIX

This mode emphasizes the sense of expansion for music source.

CHURCH

This mode provides reverberations as if you are in a stonebuilt church.

THEATER

This mode provides a three dimensional surround effect similar to that of a movie theater.

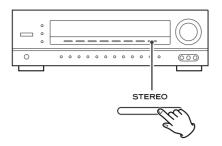
HALL

This mode is suitable for orchestral music such as classical music or opera.

STADIUM

This mode provides the expansive sound field to achieve the true stadium effect when watching baseball or soccer games.

Stereo Mode



Press the STEREO button to select the stereo mode. "STEREO" is scrolled, and sound is output from front speakers (and the subwoofer if connected).

To cancel the stereo mode, select any other surround mode by pressing the SURROUND button (\lhd or \succ).

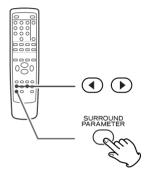
- If you select the stereo mode while the digital signal of DOLBY DIGITAL or DTS are being input, the multi-channel sound is downmixed to 2-channel.
- If the SPEAKER ON/OFF button is set to OFF while the digital signal of DOLBY DIGITAL or DTS are being input, the multichannel sound is downmixed to 2-channel automatically. And when the SPEAKER ON/OFF button is set to ON, it will return to the previous surround mode.

Dynamic Range Compression

In many listening situations, you may find loud passages objectionable. Adjusting this setting allows you to compress the sounds into a range that you may find more suitable for a particular listening situation. Dolby Digital and DTS satisfy these needs through the dynamic range controlling.

Select one of the followings to fit the individual listening situation of the audience.

1. During playback of DVD, press the SURROUND PARAMETER button of the remote control unit.



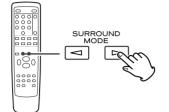
2. Select the desired compression range.

Each time the SELECT button (\blacktriangleleft or \triangleright) is pressed, the dynamic range is changed between 0.0 (uncompressed) and 1.0 (fully compressed).

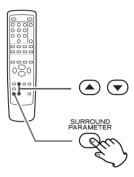
- The default setting is "0.0".
- This function is effective only when playing back a DVD disc recorded in Dolby Digital format on the DVD player connected via DIGITAL IN terminal. This control has no effect on other discs.
- This function may not work with some discs.

You can adjust the parameters for DOLBY PRO LOGIC II MUSIC.

Select DOLBY PRO LOGIC II MUSIC by pressing the SURROUND MODE button (<-> or >>).



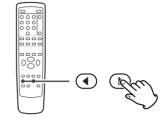
2 Press the SURROUND PARAMETER button to change the parameter.



Each time the SELECT button (\blacktriangle or \blacktriangledown) is pressed, the parameter is changed as follows:



■ Within 5 seconds, press the SELECT button (◄ or ►) to change the value.



PANO (panorama):

This mode extends the front stereo image to include the surround speakers for an exciting wraparound effect with side wall imaging. Select "ON" or "OFF".

The default setting is "OFF".

C.WIDTH (center width):

This adjusts the center image so it may be heard only from the center speaker, only from the left/right speakers as a phantom image, or from all three front speakers to varying degrees.

The adjustable range is from 0 to 7. The default setting is "3".

DIMEN (dimension):

This adjusts the sound-field either towards the front or towards the rear. The adjustable range is from -3 to +3. The default setting is "0".

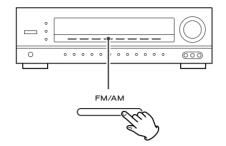
Repeat step **2** and **3** to adjust other parameters.

When all the configurations have been finished, leave the unit idle for 5 seconds to exit.

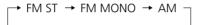
Tuner

• Make sure the antennas have been connected (see page 4 and 5).

1 Select TUNER by pressing the FM/AM button.



Each time the FM/AM button is pressed, the mode is changed as follows:



FM ST:

FM stereo broadcasts are received in stereo and the "ST" indicator lights in the display.

• If the sound is distorted and the "ST" indicator flashes, the signal is not strong enough for good stereo reception. In this case, change to MONO mode.

FM MONO:

To compensate for weak FM stereo reception, select this mode. Reception will now be forced monaural, reducing unwanted noise.

AM:

AM broadcasts are received.

0	• • • • • • • • • • • • • • • • • • •
	V TUNING A
	0 Eu

2 Select the station you want to listen to (auto selection).

Hold down the TUNING button (\checkmark or \land) for more than 0.5 seconds.

When a station is tuned in, the tuning process will stop automatically.

If you want to stop the tuning process, press the TUNING button (\checkmark or \land).

Selecting stations which cannot be tuned automatically (manual selection)

When the TUNING button (\checkmark or \land) is pressed momentarily (0.5 second or less), the frequency changes by a fixed step.

Press the TUNING button (\checkmark or \land) repeatedly until the station you want to listen to is found.

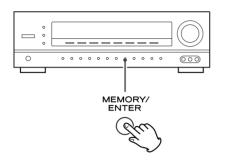
• "TUNED" is displayed when a broadcast is correctly tuned in.

You can store up to 30 stations.

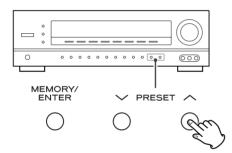
Presetting Stations

1 Tune in a station you want to listen to (see page 24).

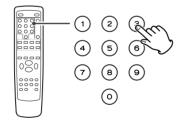
2 Press the MEMORY/ENTER button.



U While the "MEM" indicator is blinking, select a preset channel to store the station using the PRESET buttons, and then press the MEMORY/ENTER button.



You can also use the numeric buttons of the remote control unit to select a preset channel.



Example:

To select channel No. 3: $(\circ) \rightarrow (3)$

```
To select channel No. 6: (6)
```

```
To select channel No. 16: (1 \rightarrow 6)
```

To select channel No.16 for example, press "1", and within 2 seconds press "6".

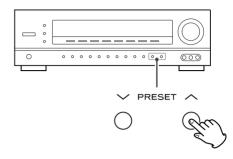
To select channel No.1, 2 or 3, press "0" and then the number (1, 2 or 3). As an example, to select number 3, press "0" and "3". (Optionally, you may press just the number "3" and then wait a few seconds.)

To select channel No.4 through 9, simply press the appropriate button (4 through 9).

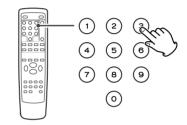
When using the numeric buttons, the station is stored automatically without pressing the MEMORY/ENTER button.

How to select preset stations

Press the PRESET buttons repeatedly until the desired preset station is found.



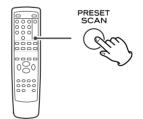
• You can also use the numeric buttons to select a preset channel.



Scanning preset stations

Press the PRESET SCAN button of the remote control unit. Preset stations stored in memory are scanned at 5 seconds intervals.

When the station you want to listen to is found, press the PRESET SCAN button again to stop scanning.



To store more stations, repeat steps **1** to **3**.

RDS

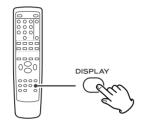
RDS Search

The Radio Data System(RDS) is a broadcasting service which allows stations to send additional information along with the regular radio program signal.

RDS works on the FM waveband in Europe only.

1 Tune in an FM station you want to listen to (see page 24).

2 Press the DISPLAY button.



Each time the DISPLAY button is pressed, the display mode is changed as follows:

- → Program Service → Program Type → Clock Time (CT) − name (PS) (PTY)
- └─ Volume ← Surround mode ← Frequency ← Radio Text (RT) ↓ └

PS (Program Service name)

displays PS or a station's name. If there is no PS data, "NO NAME" will be displayed.

PTY (Program Type)

displays the program type. If there is no PTY data, "NO PTY" will be displayed.

CT (Clock Time)

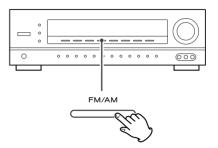
displays the information about times provided from the station.

If there is no time data, "NO TIME" will be displayed.

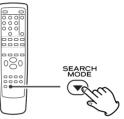
RT (Radio Text)

displays the news of stations composed of up to 64 symbols. If there is no RT data, "NO TEXT" will be displayed. A station can be searched by this function.

Select FM ST or FM MONO by pressing the FM/AM button.



2 Press the SEARCH MODE button.



Each time the SEARCH MODE button is pressed, the search mode is changed as follows:

→ RDS SRCH → TP SRCH → PTY SRCH — (frequency) ←

RDS search

Select "RDS SRCH" by pressing the SEARCH MODE button, and within 8 seconds press the ENTER button of the remote control unit.

The unit starts searching and "RDS" blinks.

When a station offering RDS services is found, the station's name will be displayed.

If the station found is not the desired one, press the ENTER button of the remote control unit again while the RDS indicator is blinking.

If no RDS station is found, "NO RDS" will be displayed.

TP search

Select "TP SRCH" by pressing the SEARCH MODE button, and within 8 seconds press the ENTER button of the remote control unit.

The unit starts searching for a station offering the traffic program, and "TP" blinks.

If no station is found or the signal is too weak, "NO TRAFF" will be displayed.

PTY search

- 1. Select "PTY SRCH" by pressing the SEARCH MODE button.
- Within 8 seconds, select the desired PTY program by pressing the SELECT button (◀ or ►). You can select from 31 kinds.
- Press the ENTER button of the remote control unit. The unit starts searching and "PTY" blinks. When the program that you have selected is found, searching will stop and the program type will be displayed.

If no station is found or if the signal is too weak, "NO PROG" will be displayed.

PTY

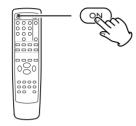
NEWS	: brief announcements, events, public opinion, reports, actual situations.
AFFAIRS	: a kind of suggestion including practical announcements other than news, documents,
INFO	discussion, analysis and so on.: daily information or reference such as weather forecast, consumer guide, medical assistance and so on
SPORT	: sports related programs.
EDUCATE	: educational and cultural information.
DRAMA	: all kinds of radio concert and serial drama.
CULTURE	: all aspects of national or local culture including
	religious events, philosophy, social science, language, theatre, and so on.
SCIENCE	: programs on natural science and technology
VARIED	: popular programs such as quiz, entertainment,
	private interview, comedy, satire and so on.
POP M	: program on commercial, practical and popular
	songs, and sale volume of discs, etc.
ROCK M	: practical modern music generally composed and
EASY M	played by young musicians. : popular music usually lasting for less than 5
	minutes.
LIGHT M	: classical music, instrumental music, chorus, and light music favored by non-professionals.
CLASSICS	: orchestra including great operas, symphony, chamber music and so on.
OTHER M	: other music styles(Rhythm & Blues, Reggae, etc.)
WEATHER	: weather reports, forecast
FINANCE	: financial reports, commerce, trading
CHILDREN	: children's programs
	: social affairs
	: religious programs
PHONE IN	: program in which the public expresses its view by phone.
TRAVEL	: travel reports
	: programs concerning recreational activities
JAZZ	: jazz music
	: country music : national music
OLDIES	: music from the so-called golden of popular music
FOLK M	: folk music
	IT : documentaries
TEST	
ALARM	: a program notifying an emergency or a natural disaster.
NONE	: No program type or undefined.

Setup

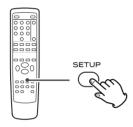
The setup menu appears on the front panel's display and allows you to perform the setup procedures easily. In most situations, you will only need to set this once during the installation and layout of your home theater, and it rarely needs to be changed later.

The setup menu consists of 5 main menus; SYSTEM, INPUT, SPK SET, CH LEVEL and PARAMTR. These menus are then divided up into various sub-menus.

1 Turn on the main unit during standby.



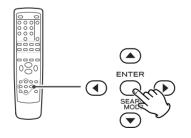
2 Press the SETUP button to enter the setup menu.



"SYSTEM" appears on the front panel display.

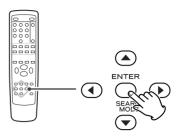
• To exit the setup menu, press the SETUP button again.

Use the SELECT buttons (▲/▼/◄/►) to navigate the menus.

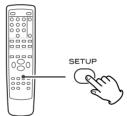


• Refer to the Setup Menu Chart on the next page.

4 Press the ENTER button to confirm the entry.



- When a numerical value (such as speaker distance) is changed, the value is confirmed without pressing the ENTER button.
- Individual menu functions are described on pages 30-33.
- Repeat steps **3** and **4** as required.
- **5** Exit the setup menu by pressing the SETUP button once more.



Setup Menu Chart

- SW: NORM SW+ SYSTEM / - T.CON: OFF ON / - RETURN BASS 0 / -10 ~ +10 - TRBL 0 / -10 ~ +10 – RETURN INPUT — D.IN: OPT / COX 1 / COX 2 / ANL - VID 1 CFG - AUTO: OFF / ON — RETURN - VID 2 CFG – D.IN: OPT / COX 1 / COX 2 / ANL - AUTO: OFF / ON - RETURN - CD CFG - D.IN: OPT / COX 1 / COX 2 / ANL - AUTO: OFF / ON – RETURN - RETURN – FRONT: L / S SPK SET -- CONFIG – CENTER: L / S / N — SURR: L / S / N – SUB-W: Y / N – RETURN DISTANCE UNIT: Μ /FT – RETURN FL: 10 FT / 1~30 FL: 3.0 M/0.0~ 9.0 - C: 3.0 M/0.0~ 9.0 — C: 10 FT / 1~30 - FR: 3.0 M / 0.0~ 9.0 — FR: 10 FT / 1~30 — SR: 1.5 M / 0.0~ 9.0 — SR: 5 FT / 1~30 – SL: 1.5 M/0.0~9.0 — SL: 5 FT / 1~30 — SW: 10 10 FT / 1~30 - SW: 3.0 M/0.0~ 9.0 - RETURN - RETURN - X-OVER 80 Hz / 40 ~ 200 - Fc: RETURN - RETURN — MODE: CAL — RETURN — / REF 2 CH LEVEL — / REF 1 FL: 0 dB / -15 ~ +15 FL: 0 dB / -15 ~ +15 — FL: 0 dB / -15 ~ +15

 - C:
 0
 dB / -15 ~ +15
 C:
 0
 dB / -15 ~ +15
 C:
 0
 dB / -15 ~ +15

 - FR:
 0
 dB / -15 ~ +15
 FR:
 0
 dB / -15 ~ +15
 FR:
 0
 dB / -15 ~ +15

SR: 0 dB/-15~+15 SR: 0 dB/-15~+15 - SR: 0 dB / -15 ~ +15 SL: 0 dB / -15 ~ +15
 SL:
 0
 dB / -15 ~ +15
 SL:
 0
 dB / -15 ~ +15

 SW:
 0
 dB / -15 ~ +15
 SW:
 0
 dB / -15 ~ +15
 - SL: 0 dB / -15 ~ +15 — SW: 0 dB / -15 ~ +15 DD: 0 dB / -10 ~ 0 DD: 0 dB / -10 ~ 0 — DD: 0 dB / -10 ~ 0 — DTS: 0 dB / -10 ~ 0 – DTS: 0 dB / -10 ~ 0 — DTS: 0 dB / -10 ~ 0 RETURN – RETURN - RETURN NIGHT: 0.0 / 0.0 ~ 1.0 RETURN PARAMTR -– NIGHT M - PANO: OFF / ON - PLII MSC - RETURN - C.WIDTH: 0 / 0 ~ 7 - DIMEN: 0 / -3 ~ +3 — RETURN

EXIT

- When "RETURN" is selected on a sub-menu, the previous menu returns.
- During setup menu operation, only the POWER switch, STANDBY/ON button and other buttons required for system setup will function.

: Default

Settings (System)

Settings (Input)

Subwoofer Setting

"SW+" mode is valid only when "FRONT" and "CENTER" are set to "L" and "SUB-W" to "Y" on the SPK SET menu. For details, refer to "Speaker Setup" on page 31.

NORM (default):

The low frequency signals of channels set to "L" are reproduced from those channels only.

In this mode, the low frequency signals that are produced from the subwoofer channel are only the LFE signals (from the multi-channel sources that contain LFE (Low Frequency Effects) channel, also called the "0.1" channel) and the low frequency signals of the channels set to "S".

SW+:

The low frequency signals of channels set to "L" are produced simultaneously from those channels and the subwoofer channel.

In this mode, the low frequency range expands more uniformly through the room, but depending on the size and shape of the room, interference may result in a decrease of the actual volume of the low frequency range.

TONE CONTROL

Press the SELECT button (\blacktriangle or \blacktriangledown) to select the desired tone, then press the SELECT button (\blacktriangleleft or \triangleright) to adjust the selected tone as desired.

When the tone control is set to off, the "DIRECT" indicator lights on the display and you can listen to a program source without the tone effect.

When the tone control is set to on, the "DIRECT" indicator turns off and you can adjust the tone for your taste.

- In general, we recommend the bass and treble to be adjusted to 0 dB (flat level).
- Extreme settings at high volume may damage your speakers.

Press the SELECT button (\blacktriangle or \blacktriangledown) to select the desired input source, then press the ENTER button. Press the SELECT button (\bigstar or \blacktriangledown) to select the desired item, then press the SELECT button (\blacktriangleleft or \blacktriangleright) to set the selected item as desired.

D.IN (DIGITAL IN):

You can select from OPT (optical), COX 1 (coaxial 1 - default), COX 2 (coaxial 2) and ANL (analog).

• You can hear the sound from the selected DIGITAL IN terminal, as far as VIDEO (1 or 2) or CD has been selected.

AUTO (AUTO SURROUND):

When you select "ON", the optimum surround mode will be automatically selected depending on the signal format being input.

When you select "OFF" (default), you can select from different surround modes available for the signal being input using the SURROUND buttons (\lhd / \triangleright).

- When the SPEAKER ON/OFF button is set to OFF, the AUTO SURROUND mode is invalid.
- Even when the AUTO SURROUND mode is selected and the same type of digital signal format is being input, the optimum surround mode may vary depending on whether the speaker type is set to "N (None or No)" or not.
- When the AUTO SURROUND mode is selected, the surround modes other than the optimum surround mode cannot be selected. When the AUTO SURROUND mode is selected and the PCM (2 channel) digital signal or the analog stereo signal is being input, only the stereo mode will be selected.
- When 96 kHz PCM signal is being input, only the stereo mode will be selected regardless of selecting either the auto surround mode or the manual surround mode.

After you have installed this receiver and connected all the components, you should adjust the speaker settings for the optimum sound acoustics according to your environment and speaker layout.

When you change speakers, speaker positions, or the layout of your listening environment, you should adjust the speaker settings, too.

Speaker Configuration (CONFIG)

You should select the size of the speakers that are connected. Press the SELECT button (\blacktriangle or \blacktriangledown) to select "CONFIG", then press the ENTER button. Press the SELECT button (\blacktriangle or \blacktriangledown) to select each speaker, then press the SELECT button (\blacktriangleleft or \triangleright) to set the size.

Depending on your speaker type, you should select one of the following speaker types:

- L (Large): Select this when connecting speakers that can fully reproduce sounds below crossover frequency.
- S (Small): Select this when connecting speakers that cannot fully reproduce sounds below crossover frequency. When this is selected, sounds below crossover frequency are sent to the subwoofer or speakers which are set to "L (Large)" (when not using a subwoofer).
- N (None): Select this when no speakers are connected. When this is selected, sounds are sent to the speakers which are not set to "N (None)".

Y (Yes)/N (No):

Select "Y (Yes)" when a subwoofer is connected. Select "N (No)" when a subwoofer is not used.

- When speakers are set to "S (Small)", you should set their crossover frequency correctly according to their frequency characteristics.
- When "SUB-W" is set to "N (No)", "FRONT" is automatically set to "L (Large)".
- When the "FRONT" is set to "S (Small)", "CENTER" and "SURR" cannot be set to "L (Large)".

About speaker size

- Select "L (Large)" or "S (Small)" not according to the actual size of the speaker but according to the speaker's capacity for playing low frequency (bass sound below frequency set on the "X-OVER" menu) signals.
- If you do not know, try comparing the sound at both settings (setting the volume to a level low enough so as not to damage the speakers) to determine the proper setting.

Speaker distance (DISTANCE)

You should enter the distance between the listening position and each speaker to set the delay time automatically for optimum surround playback.

When enjoying multi-channel surround playback with Dolby Digital and DTS sources, etc., it is ideal that the center, surround and subwoofer speakers should be the same distance from the main listening position as the front speakers. By entering the distance between the listening position and each speaker, the delay times of center, surround and subwoofer speakers are automatically adjusted to create an ideal listening environment virtually as if the center, surround and subwoofer speakers were at their ideal locations respectively.

Press the SELECT button (\blacktriangle or \blacktriangledown) to select "DISTANCE", then press the ENTER button. Press the SELECT button (\bigstar or \blacktriangledown) to select the desired item, then press the SELECT button (\blacktriangleleft or \triangleright) to set the selected item as desired.

• You cannot select the subwoofer and the speakers set to "N (None or No)".

When selecting the desired unit:

• You can select either "M (Meter)" or "F (Feet)". Once selected, the distances are automatically changed in the selected unit.

When setting the distance:

• You can set the distance within the range of 0.0 to 9.0 meters in 0.3 meter intervals (or 1 to 30 feet in 1 feet intervals).

Crossover frequency

You should select the crossover frequency.

When speakers are set to "S (Small)", be sure to set their crossover frequency correctly according to their frequency characteristics.

When speakers are set to "S (Small)", low frequencies in those channels that are below the crossover frequency are to output from subwoofer or front speakers set to "L (Large)" (when not using a subwoofer).

Press the SELECT button (\blacktriangle or \blacktriangledown) to select "X-OVER", then press the ENTER button. Press the SELECT button (\blacktriangleleft or \triangleright) to set the crossover frequency as desired.

- You can adjust the crossover frequency within the range of 40 to 200 Hz in 10 Hz steps.
- Refer to the operating instructions of the speakers to be connected. If the frequency range of your speaker is 100 to 20 kHz, the crossover frequency should be set to 100 Hz (or slightly higher).

Settings (Parameters)

Adjusting channel levels

Press the SELECT button (\blacktriangle or \bigtriangledown) to select the desired channel, then press the SELECT button (\blacktriangleleft or \triangleright) to adjust the selected channel. Repeat these steps to adjust each channel level.

- The LFE (Low Frequency Effects) level can be adjusted within the range of -10 to 0 dB and other channel levels within the range of -15 to +15 dB.
- In general, we recommend the LFE level to be adjusted to 0 dB. (However, the recommended LFE level for some early DTS software is -10 dB.) If the recommended levels seem too high, lower setting as necessary.
- These adjusted levels are memorized into user's memory ("CAL"), not into the preset memory ("REF 1", "REF 2").

Memorizing channel levels

You can memorize the adjusted channel levels into preset memory ("REF 1", "REF 2") and recall the memorized levels whenever you want. After performing the steps in "Adjusting channel levels", press the ENTER button. Press the SELECT button (\blacktriangleleft or \blacktriangleright) to select the desired preset memory.

Recalling memorized channel levels

Press the SELECT button (\blacktriangle or \bigtriangledown) to select "MODE", then press the SELECT button (\blacktriangleleft or \triangleright) to select "REF 1" or "REF 2". The channel levels memorized into the selected preset memory are recalled.

NIGHT Mode

Press the SELECT button (\blacktriangle or \blacktriangledown) to select "NIGHT M", then press the ENTER button. Adjust the dynamic range compression between 0.0 and 1.0.

This function compresses the dynamic range of previously specified parts of Dolby Digital or DTS sound track (with extremely high volume) to minimize the difference in volume between the specified and non-specified parts.

This makes it easy to hear all of the sound track when watching movies at night at low levels.

- The night mode setting is valid only when the digital signals from Dolby Digital or DTS program sources are being input.
- The night mode setting may not be valid in some Dolby Digital or DTS program sources.
- Refer to "Dynamic Range Compression" on page 22.

PLII MUSIC (DOLBY PRO LOGIC II MUSIC) Mode

You can adjust the various surround parameters for optimum surround effect.

- The parameter settings are valid only when listening in DOLBY PRO LOGIC II MUSIC mode.
- For details, refer to "DOLBY PRO LOGIC II parameters" on page 23.

Test Tone

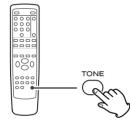
Balancing relative volume between speakers using Test Tone

The test tone function is useful to adjust the relative volume between speakers.

Once the balance is set, you don't have to change the balance as long as the speakers aren't moved.

- It is also possible to adjust the relative volume during playback of DVD.
- Use the remote control from your listening position.
- The TONE button will not work when the SPEAKER ON/OFF button is set to off. In that case, press the SPEAKER ON/OFF button to turn the speakers on.
- The TONE button will work when EXTERNAL IN or STEREO is selected.

1 Press the TONE button.



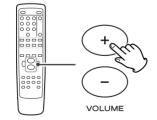
The test tone is emitted from each speaker in the following order at 2-second intervals.

```
→Front Left → Center → Front Right –
```

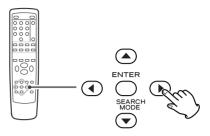
```
– Subwoofer 🗕 Rear Left 🗕 Rear Right 🚽
```

• If certain speakers are not being used, (for example, no center speaker) the noise sequencer will automatically skip over that channel.

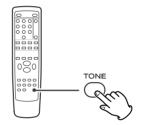
2 Adjust the master volume to the normal listening level.



Adjust the volume of each speaker so that the test tone from each speaker sounds the same.



- Select the channel you want to change the level by pressing the SELECT buttons (◄/►), then adjust the level by pressing the SELECT buttons (▲/▼).
- The level can be adjusted in 1 dB steps from -15 dB to +15 dB.
- **4** When the setting has been finished, press the TONE button to stop the test tone.



If you experience problems with this unit, please take the time to look through this chart and see if you can solve the problem yourself before you call your dealer or TEAC service center.

No power

Check the connection to the AC power supply. Check and make sure the AC source is not a switched outlet and that, if it is, the switch is turned on. Make sure there is power to the AC outlet by plugging another item such as a lamp or fan.

There is no sound or only a very low-level sound is heard.

- ➡ Adjust the volume by turning the MASTER VOLUME knob.
- ➡ If the SPEAKER indicator isn't lit, press the SPEAKER ON/OFF button to turn it on.
- Check that the speakers and components are connected securely.
- ➡ Check the operation of the connected component.
- ➡ Check the audio output setting of your DVD player.
- Select the proper source using the INPUT SELECTOR buttons and the DIGITAL INPUTS button (see page 16).
- → Select the proper surround mode (see page 20).
- ➡ If "MUTE" is blinking on the display, press the MUTING button to restore the sound.

No sound from rear (surround) or center speakers.

- ➡ Check the speaker setting (see page 31).
- ➡ Check the channel level setting (see page 33).
- ➡ Select the proper surround mode (see page 20).
- Check the audio output setting of your DVD player. Play a multi-channel source.

Sound cuts off during listening to the music or no sound even though power is ON.

- ➡ Speaker impedance is less than prescribed for this unit.
- ➡ Turn the power off and reduce the volume.

Low bass response.

 Speaker polarity (+/-) is reversed. Check all speakers for correct polarity.

Severe hum or noise is heard.

- ➡ Check that the speakers are connected securely.
- Make sure the line cords and speaker cables are as far away from the AC supply as possible.

The DIGITAL indicator blinks.

- → The unit cannot perceive the digital signal (see page 16).
- → Select the proper decoding mode by pressing the AUTO/MANUAL button (see page 20).

No picture.

- ➡ Check that the system is connected properly.
- ➡ Turn on the TV.
- Make sure you have selected the proper video input on the TV so that you can view the pictures.
- \clubsuit Select the proper video source using the VIDEO button.

Cannot listen to any station, or signal is too weak.

- ➡ Make sure the antenna is properly connected.
- → Tune in the station properly.
- → If a TV is near the unit, turn it off.
- ➡ Install the antenna again after relocating it to a better reception position.
- ➡ An external antenna may be required.

Though the broadcast is stereo, it sounds monaural.

→ Select FM ST by pressing the FM/AM button.

Remote control doesn't work.

- ➡ Press the POWER switch of the main unit to turn it standby.
- → If the batteries are dead, change the batteries.
- Use remote control unit within the range (5 m) and point at the front panel.
- Clear obstacles between the remote control unit and the main unit.
- → If a strong light is near the unit, turn it off.

If normal operation is not restored, unplug the power cord from the outlet and plug it again.

Maintenance

If the surface of the unit gets dirty, wipe with a soft cloth or use diluted mild liquid soap. Be sure to remove any excess completely. Do not use thinner, benzine or alcohol as they may damage the surface of the unit.

Specifications

Amplifier Section

Output Power 100 V	V + 100 W (Stereo, 0.7 % THD, 40 Hz to 20 kHz, 6 Ω)
	120 W + 120 W (6 Ω, JEITA)
Surround Output Power 125 W per char	nnel (0.7 % THD, 1 kHz, 6 Ω , only one channel driven)
	150 W per channel (6 Ω , JEITA)
Total Harmonic Distortion	\ldots 0.09 % (at 100 W, 1 kHz, 6 $\Omega)$
Audio Input Sensitivity/Impedance	*LINE: 280 mV/47 k Ω
Output Level/Impedance (TAPE REC)	
Frequency Response	*LINE: 20 Hz-70 kHz, +0 / –3 dB
Signal-to-Noise Ratio	*LINE: 92 dB (IHF-A)
Tone Control	. BASS: \pm 10 dB at 100 Hz, TREBLE: \pm 10 dB at 10 kHz

Digital Audio Section

Sampling Frequency	32 kHz, 44.1 kHz, 48 kHz, 96 kHz
Digital Input Level	COAXIAL (75Ω): 0.5 Vp-p
	OPTICAL (660nm): -15 dBm to -21 dBm

Video Section

Output level	1 Vp-p (75 Ω)
Jacks.	RCA jack

FM Tuner Section (Without notes 100.1 MHz, 65 dBf)

Tuning Range	87.5 MHz-108.0 MHz (50 kHz steps)
Total Harmonic Distortion (1 kHz)	Mono: 0.5%, Stereo: 1.0%
Frequency Response	30 Hz-15 kHz, ±3 dB
Stereo Separation (1 kHz)	
Signal-to-Noise Ratio	Mono: 55 dB
	Stereo: 50 dB

AM Tuner Section

Tuning Range	522 kHz-1,611 kHz (9 kHz steps)
Usable Sensitivity	
Total Harmonic Distortion	1.5% at 100 dB/m
Signal-to-Noise Ratio	

General

Power Requirements	AC 230 V, 50 Hz (European Model)
	AC 240 V, 50 Hz (Australian Model)
Power Consumption	
AC Outlet (except Australia model, total 100 W max.)	switched x 1
Dimensions (W x H x D)	
Weight (net)	

Standard Accessories

AM Loop Antenna x 1 FM Straight Type Antenna x 1 Remote Control Unit (RC-1108) x 1 Battery (AAA, R03, UM-4) x 2 Owner's Manual x 1

*: LINE means CD, TAPE, VIDEO.

- Design and specifications are subject to change without notice.
- Weight and dimensions are approximate.
- Illustrations may differ slightly from production models.

TEAC

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This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.

Model number

Serial number